

**REMARKS**

Claims 1-32 are pending in the application. Claims 1 and 14 are independent claims.

Claim 1 has been amended to use the term "transient" instead of "temporal." Support for this is found in the title of the application and in the discussion related to Figs. 6-9 and 11-14, and in paragraphs [0021], [0022], [0024], [0025], [0030], [0039] and [0040].

Claim 1 has been amended to replace intended use language with operational language.

Claim 4 has been amended to correct a typographic error.

Claim 8 has been amended to correct a typographic error.

Claim 12 has been amended to replace intended use language with operational language.

Independent claim 14 has been amended in a manner similar to claim 1.

Claim 17 has been amended to correct a typographic error.

Claim 21 has been amended to correct a typographic error.

No new matter has been added by the amendments. Reconsideration of the application as amended is respectfully requested. The Examiner's objections and rejections are addressed in substantially the same order as in the referenced office action.

**CLAIM OBJECTIONS**

The Examiner has objected to claims 4, 14 and 17 for certain informalities.  
Claims 4, 14 and 17 have been amended to address the objections.

**REJECTION UNDER 35 USC § 112 ¶2**

Claims 8, 14 and 21 stand rejected under 35 USC § 112 ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 8, 14 and 21 have been amended to address the rejection.

**REJECTION UNDER 35 USC § 102**

Claims 1-3, 6, 8-16, 21-29, 31 and 32 stand rejected under 35 USC § 102(e) over US 6900640 to *Fanini* et al. Claims 1 and 14 are independent claims.

The present invention is an apparatus for use in a borehole in, and a method of evaluating, an earth formation. A tubular portion of the apparatus includes a damping portion for interrupting a flow of eddy currents. A transmitter positioned within said damping portion propagates an electromagnetic signal in the earth formation. A receiver positioned within the damping portion axially separated from said transmitter receives a transient signal indicative of resistivity properties of the formation. A processor determines from the first and second signals a resistivity of the earth formation.

The teachings of *Fanini* relate entirely to an induction tool for formation resistivity evaluation. To paraphrase the Schlumberger Oilfield Glossary, an induction tool is based on the principle of inducing alternating current loops in the formation and measuring the resultant signal in a receiver. In contrast, the present invention is directed towards transient methods. As noted in the Schlumberger Oilfield Glossary, such methods are "a variation of the electromagnetic method in which electric and magnetic fields are induced by transient pulses of electric current in coils or antennas instead of by continuous (sinusoidal) current."

Applicant notes that there is no teaching in *Fanini* of the measurement and processing of transient signals.

Independent claim 1 specifies at least one receiver which receives a transient signal and a processor which determines from the temporal signal a resistivity of the earth formation.

In order for a claimed invention to be anticipated by a prior art reference under 35 USC § 102, the single prior art reference must disclose each and every element of the claim arranged as in the claim. This is clearly lacking in the present case.

Accordingly, applicant respectfully submits that claim 1 and claims 2-13 and 31 that depend upon claim 1 are patentable under 35 USC § 102 over *Fanini*.

In addition, none of the prior art of record, either singly or in combination, teaches or suggests all of the elements of independent claim 1. Accordingly, claim 1 and claims 2-13 and 31 that depend upon claim 1 are also patentable under 35 USC § 103 over *Fanini* and the prior art of record.

Independent claim 14 includes the substantive elements of claim 1 discussed above. Accordingly, applicant further submits that claim 14 and claims 15-30 and 32 that depend upon claim 14 are patentable under 35 USC §§ 102-103 over *Fanini* and the prior art of record for the same reasons that claim 1 is patentable under 35 USC §§ 102-103 over *Fanini* and the prior art of record

The application is now believed to be in condition for allowance.

The Commissioner is authorized to charge any fee due for the amendments herein and to charge any deficiency to Deposit Account No. 02--0429 (414-34864-US)

Respectfully submitted,



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